(c) the steps taken to increase use of thorium to avoid dependence on uranium import?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN) :(a) About 1% of the fuel bundles loaded in the first core of six 220 MWe Indian Pressurised Heavy Water Reactors *viz* Kakrapar Atomic Power Station 1 & 2, Kaiga Atomic Power Station 1 & 2 and Rajasthan Atomic Power Station 3 & 4 are made of thorium. In the first core of Rajasthan Atomic Station - 2 after retubing about 2.17% Thorium fuel bundles were loaded. Subsequent refuelings have been done only with uranium based fuel.

In addition, the entire code of the 30 KW Thermal Research Reactor KAMINI, located in Indira Gandhi Centre for Atomic Research is based on Uranium-233 fuel derived from thorium.

(b) The current estimates for mineable reserves of thorium in the country amount to approximately 2,25,000 tons metal.

(c) The three stage Indian Nuclear Power Programme is optimized to make maximum use of indigenous nuclear fuel resources including available uranium and the large thorium resources. Accordingly, the Pressurised Heavy Water Reactor and Fast Breeder Reactor based programmes are already in an advanced stage of implementation. The third stage of large scale deployment of thorium based fuel would require growth of the Indian Fast Breeder Reactor Programme for producing the required Uranium-233 in large quantities to support commercial reactors using thorium. In order to develop the associated technologies, a 300 MWe Advanced Heavy Water Reactor has been designed. The reactor will produce nearly two third of its power from thorium based fuel, while the remaining power will be produced from plutonium.

Preservation of fruits in Jammu and Kashmir

2715. SHRI T.S. BAJWA: Will the PRIME MINISTER be pleased to state:

(a) whether Bhabha Atomic Research Centre has developed a technique of long lasting preservation of fruits;

(b) if so, whether this technique has been tried in Jammu and Kashmir; and

(c) if not, the reasons therefor?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) Yes, Sir.

(b) Yes, Sir and encouraging results have been obtained.

(c) Not applicable in view of answer to (b) above.

Production of coal

†2716. DR. MURLI MANOHAR JOSHI:
SHRI RAJ MOHINDER SINGH MAJITHA:

Will the Minister of COAL be pleased to state:

(a) whether it is a fact that the Coal India Limited (CIL) and its subsidiaries have carried out more production of coal in the year 2005-06 than 2004-05;

(b) if so, the quantity of coal produced in both of the above said years separately; and

(c) the turn over of the coal producing units during the above said years?

THE MINISTER OF STATE IN THE MINISTRY OF COAL (DR. DASARI NARAYANA RAO): (a) and (b) Yes Sir, the quantity of coal produced by Coal India Limited and its subsidiary companies during the year 2004-05 and 2005-06 are given below:

In Million Tonnes

Company	2004-05	2005-06*
ECL	27.25	30.11
BCCL	22.32	22.30
CCL	37.39	40.51
NCL	49.95	52.52
WCL	41.41	43.20
SECL	78.55	83.02
MCL	68.08	89.60
NEC	0.63	1.10
CIL	323.58	341.37

*Provisional.

†Original notice of the question was received in Hindi.